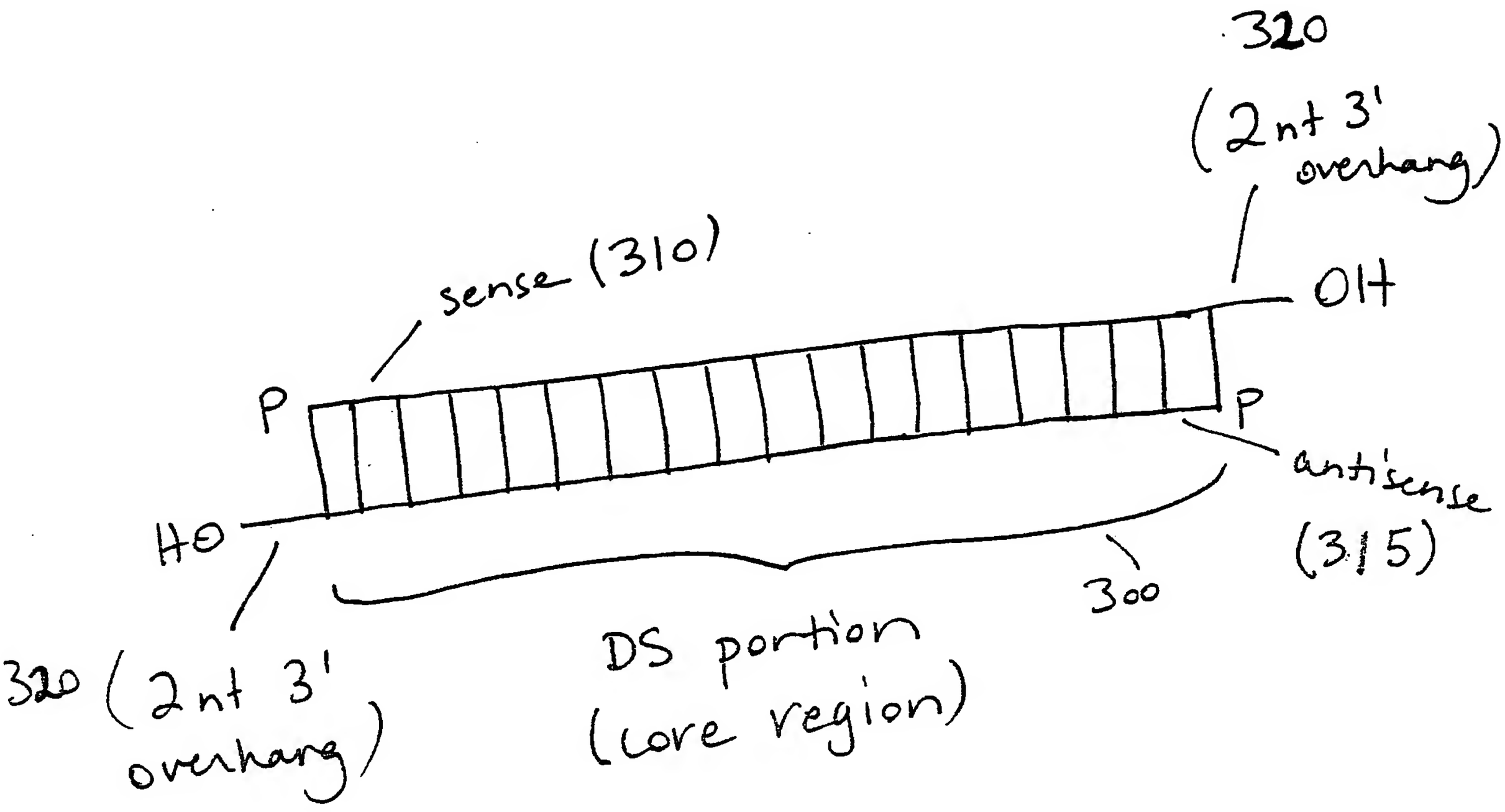

320
(2nt 3'
overhang)
sense (310)
OH
P
P
HO
anti'sense
(315)
300
320 (2nt 3'
overhang)
DS portion
(core region)

FIGURE 3 1

RNAi in Drosophila

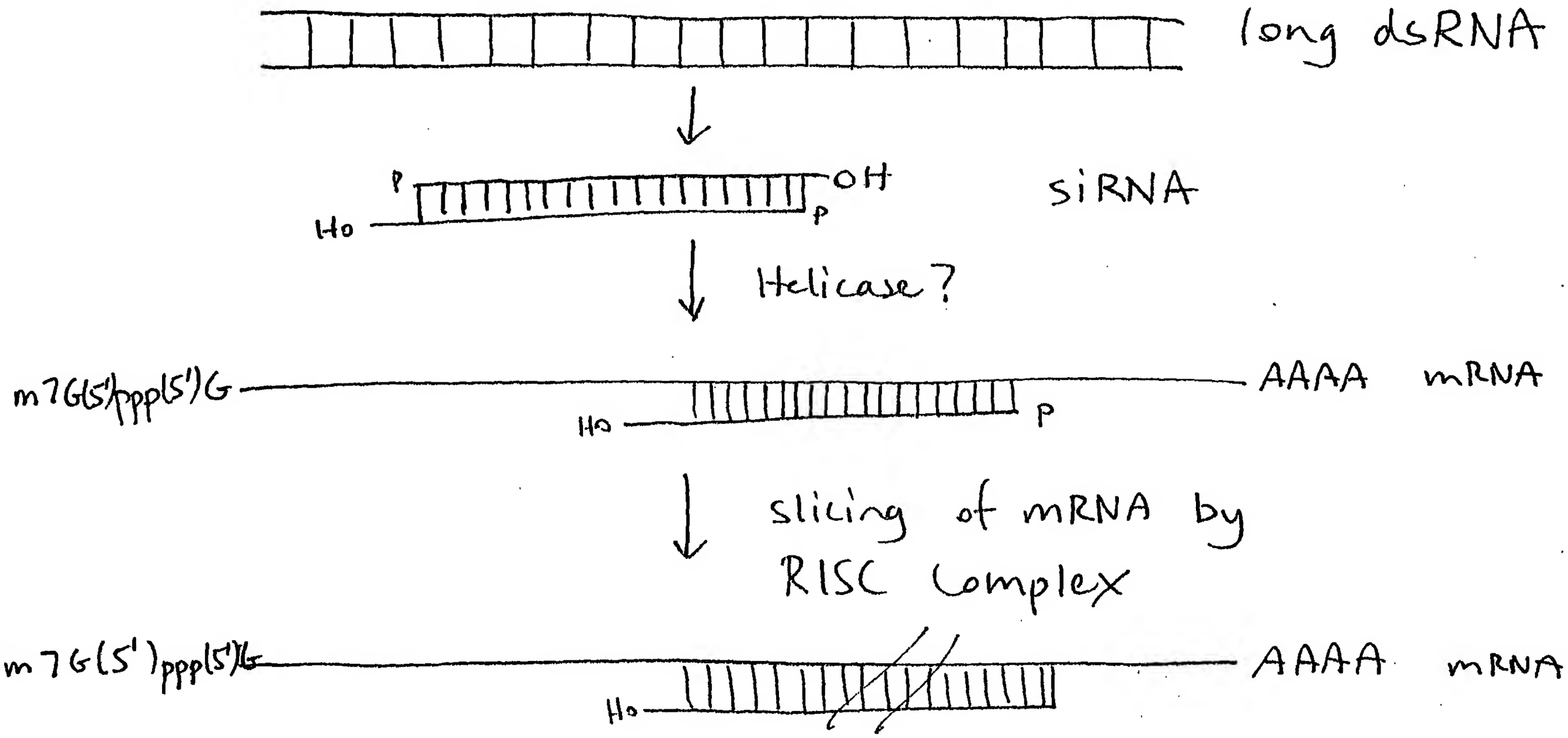
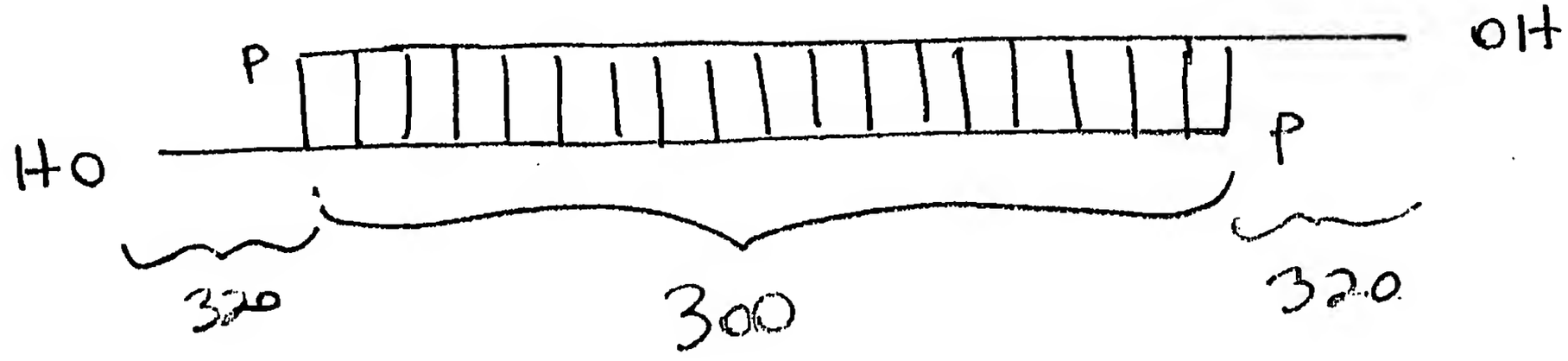
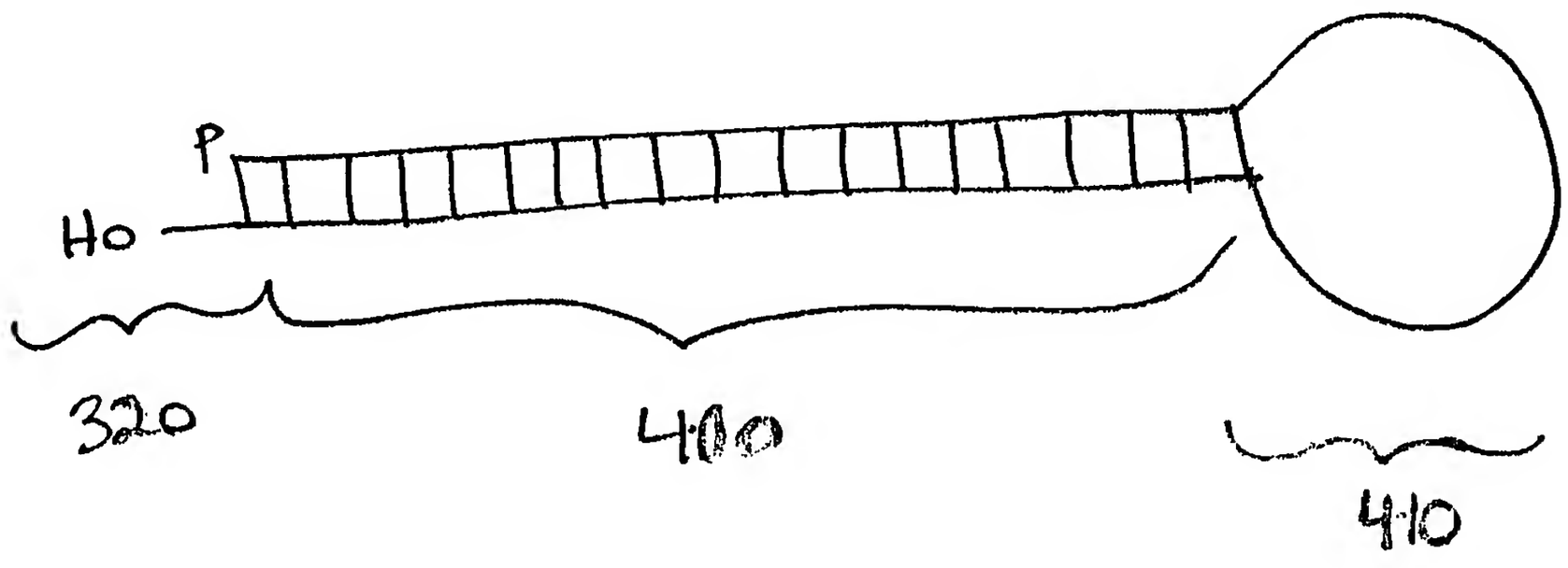


FIGURE # 2

A



B



C

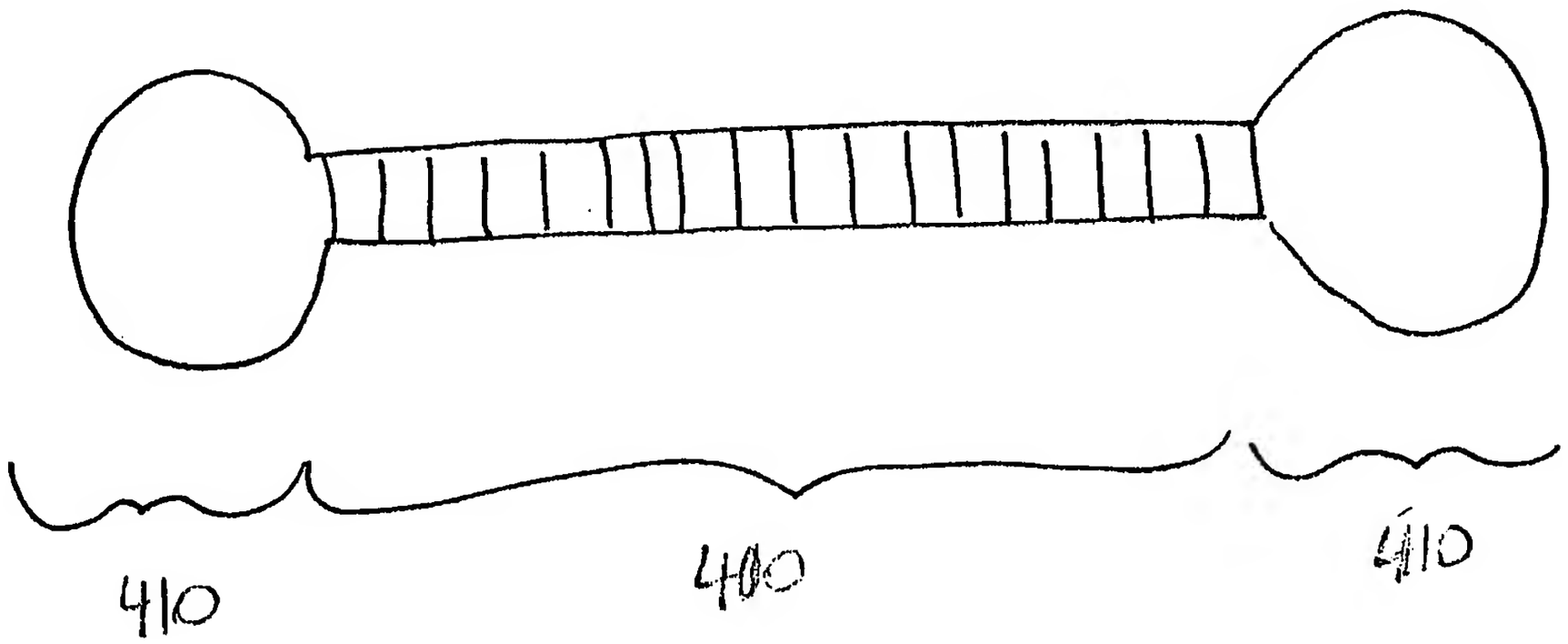


FIGURE #3

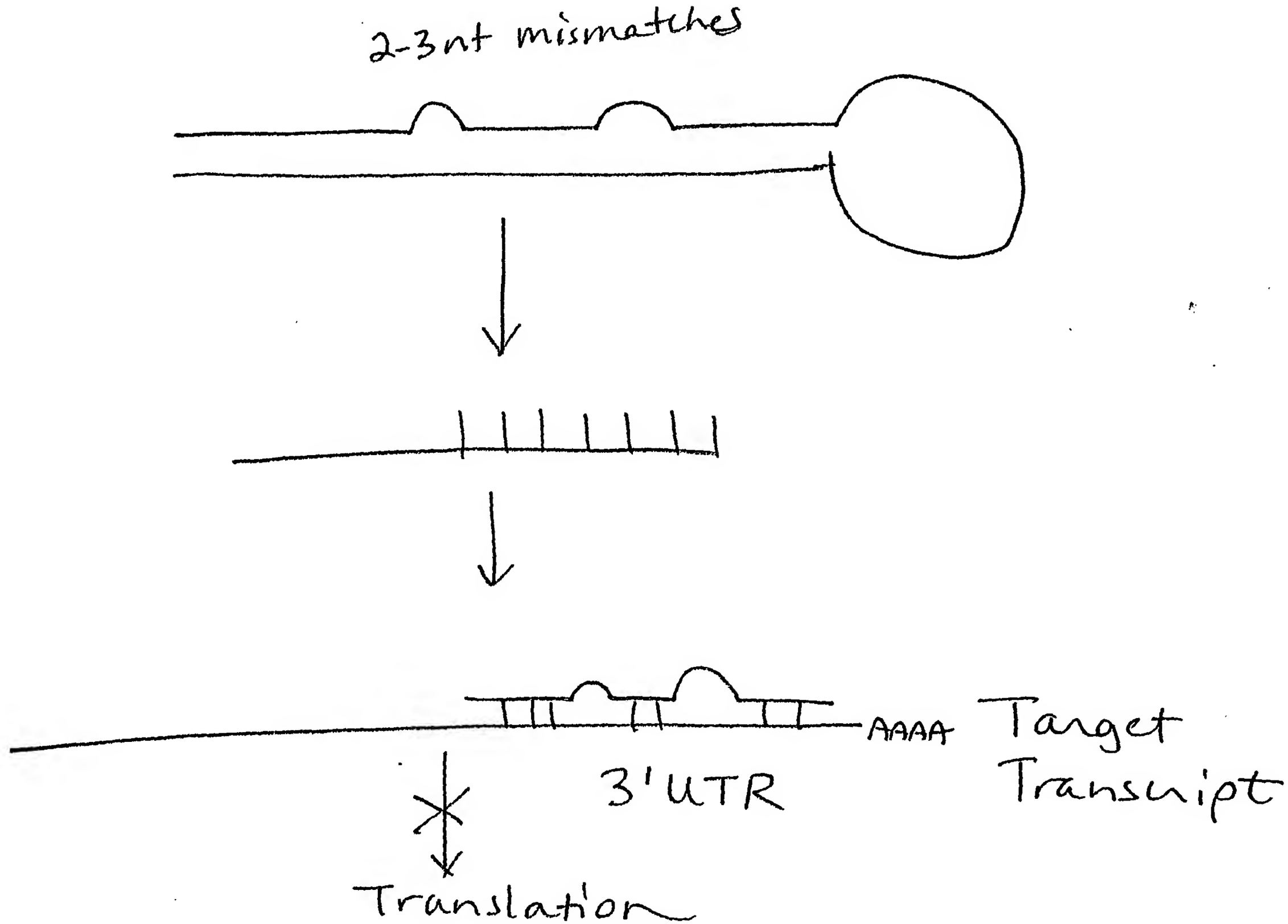


FIGURE #4

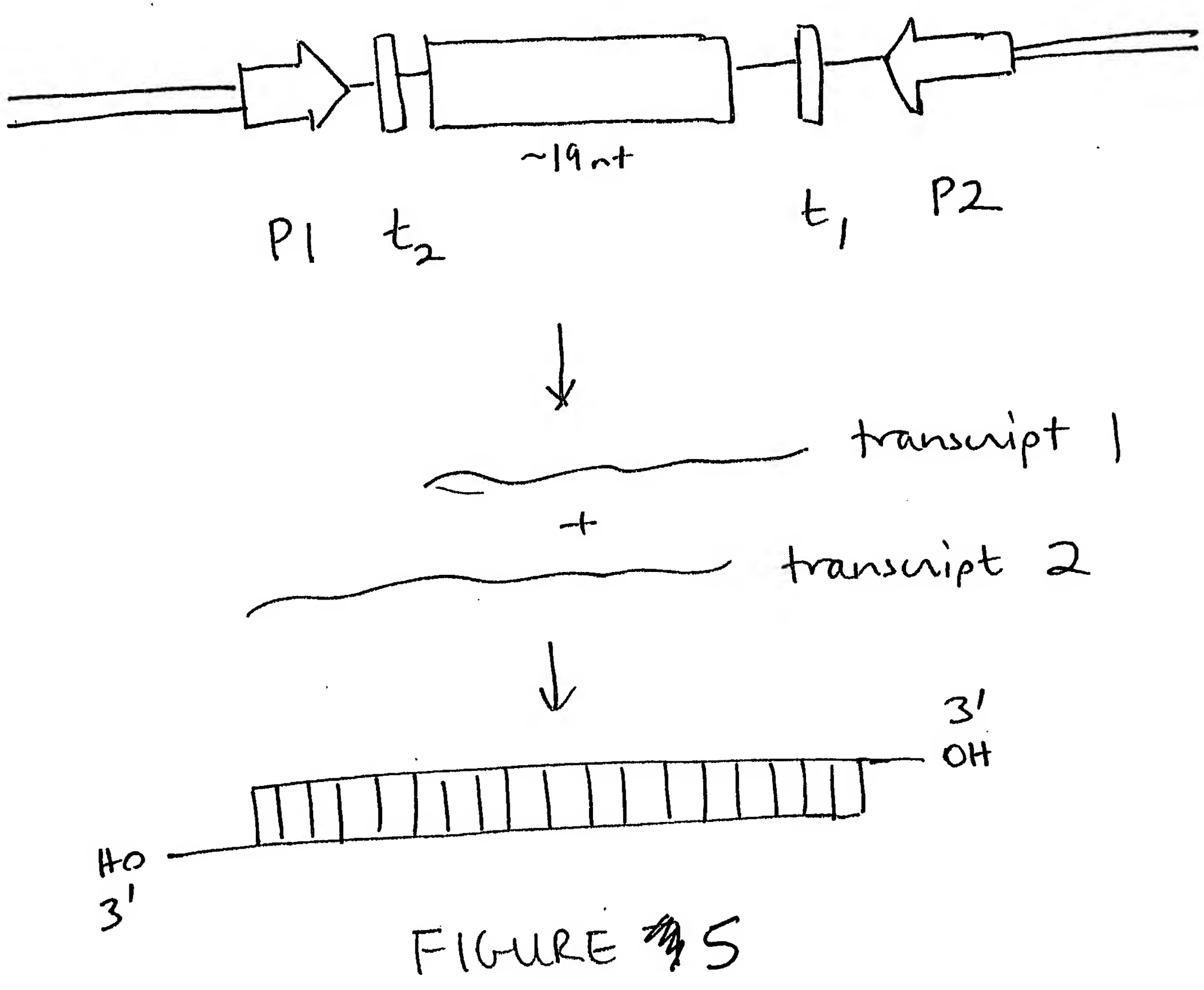


FIGURE #5

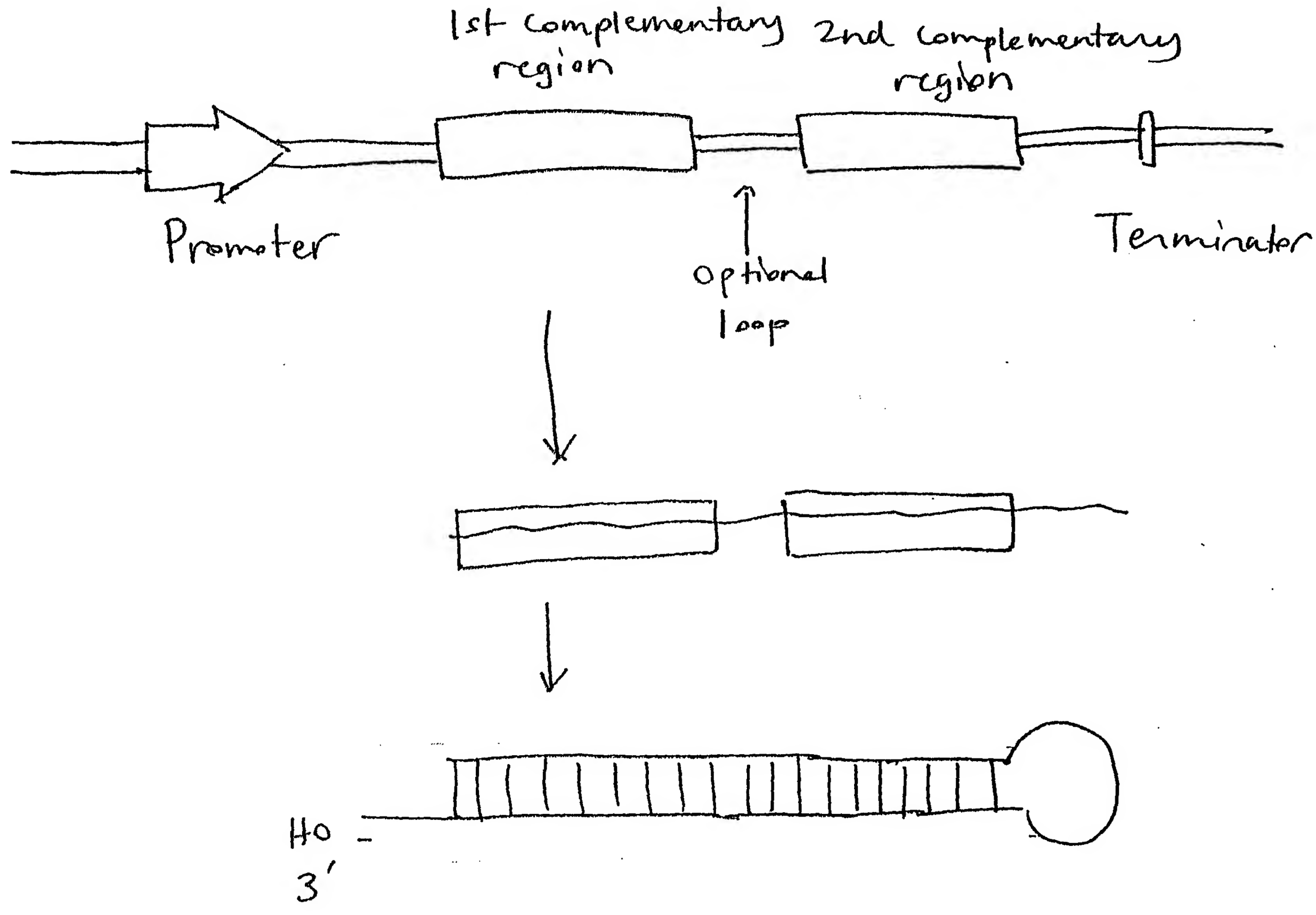

1st complementary region
2nd complementary region
Promoter
optional loop
Terminator
HO
3'

FIGURE #6

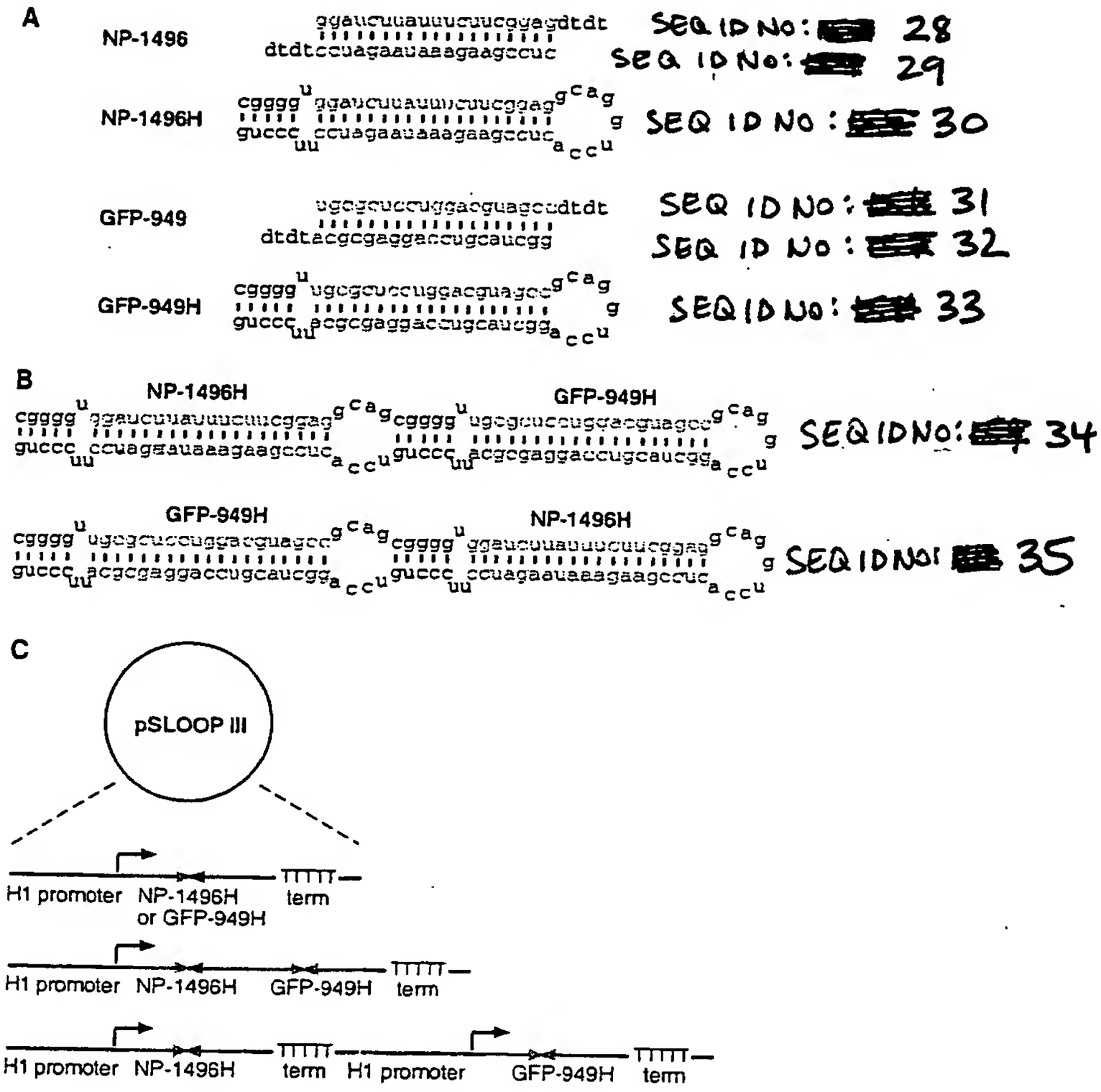
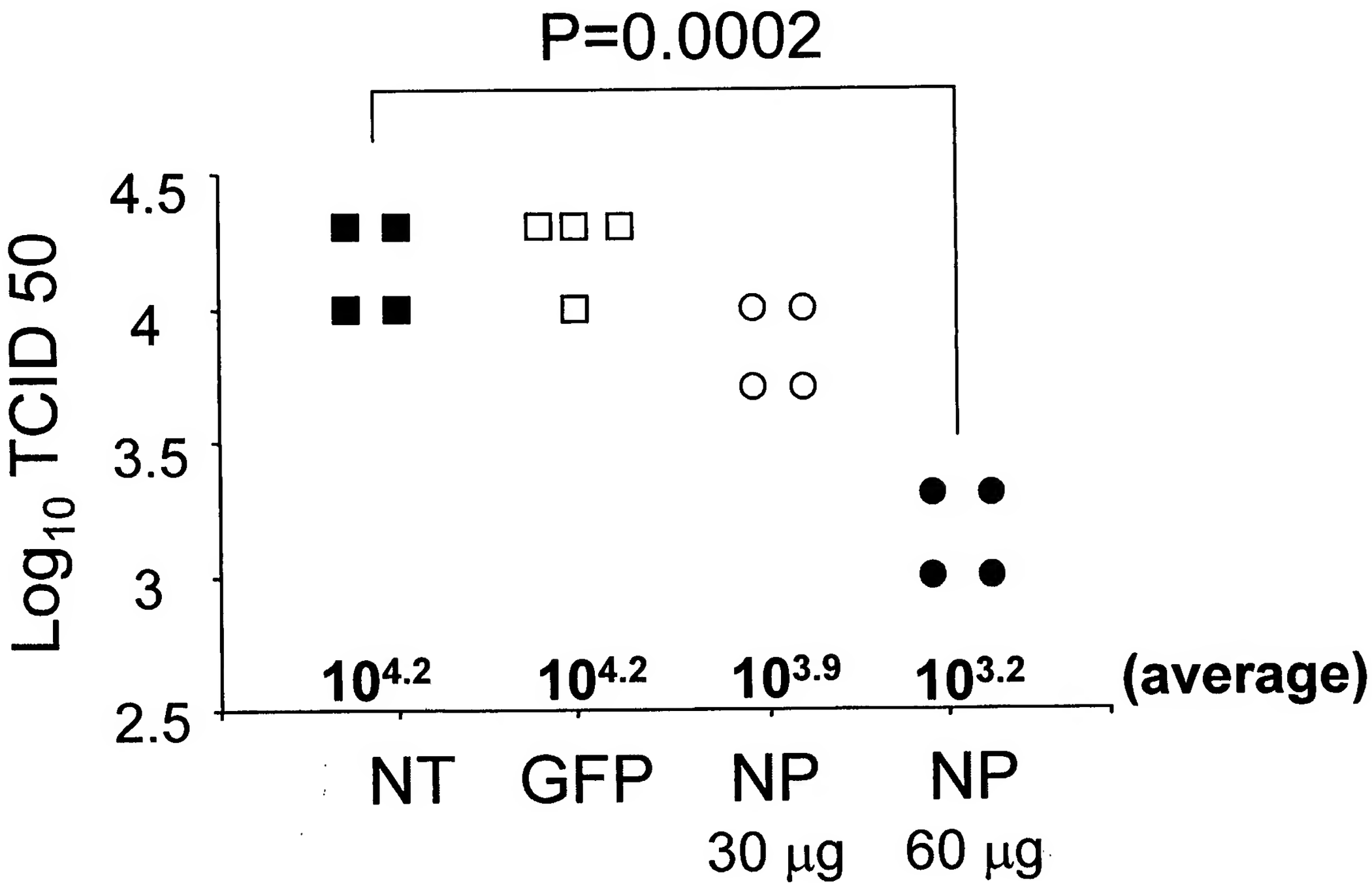

A
NP-1496
SEQ ID NO: 28
SEQ ID NO: 29
NP-1496H
SEQ ID NO: 30
GFP-949
SEQ ID NO: 31
SEQ ID NO: 32
GFP-949H
SEQ ID NO: 33
B
NP-1496H
GFP-949H
SEQ ID NO: 34
GFP-949H
NP-1496H
SEQ ID NO: 35
C
pSLOOP III
H1 promoter
NP-1496H
or GFP-949H
term
H1 promoter
NP-1496H
GFP-949H
term
H1 promoter
NP-1496H
term
H1 promoter
GFP-949H
term

Figure 7

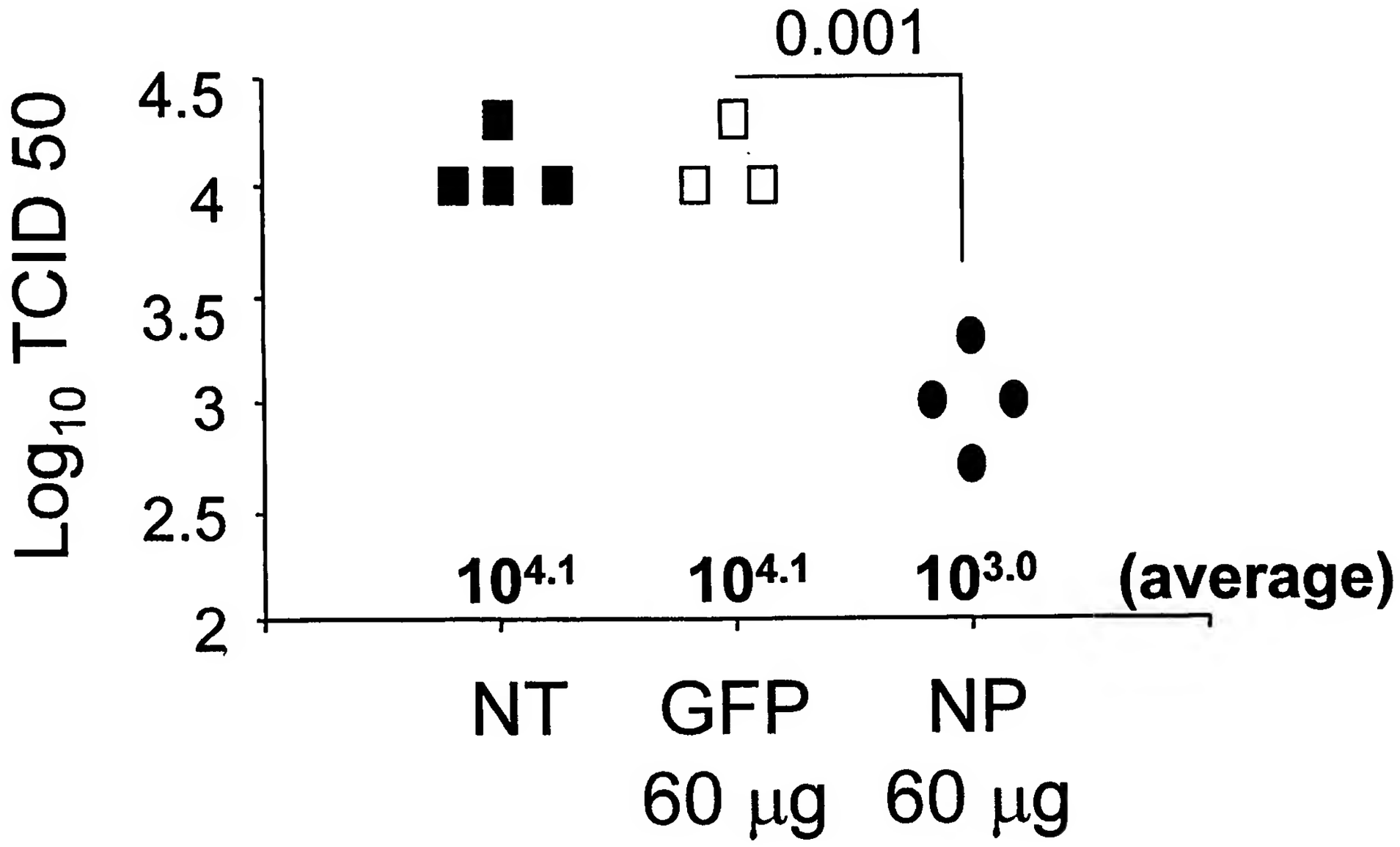
siRNA prevent influenza virus production in mice



siRNA + Carrier 1, i.v. —3 h→ PR8, 2k pfu/mouse —24 h→ 25 μl lung homogenate → MDCK HA assay

FIGURE 8A

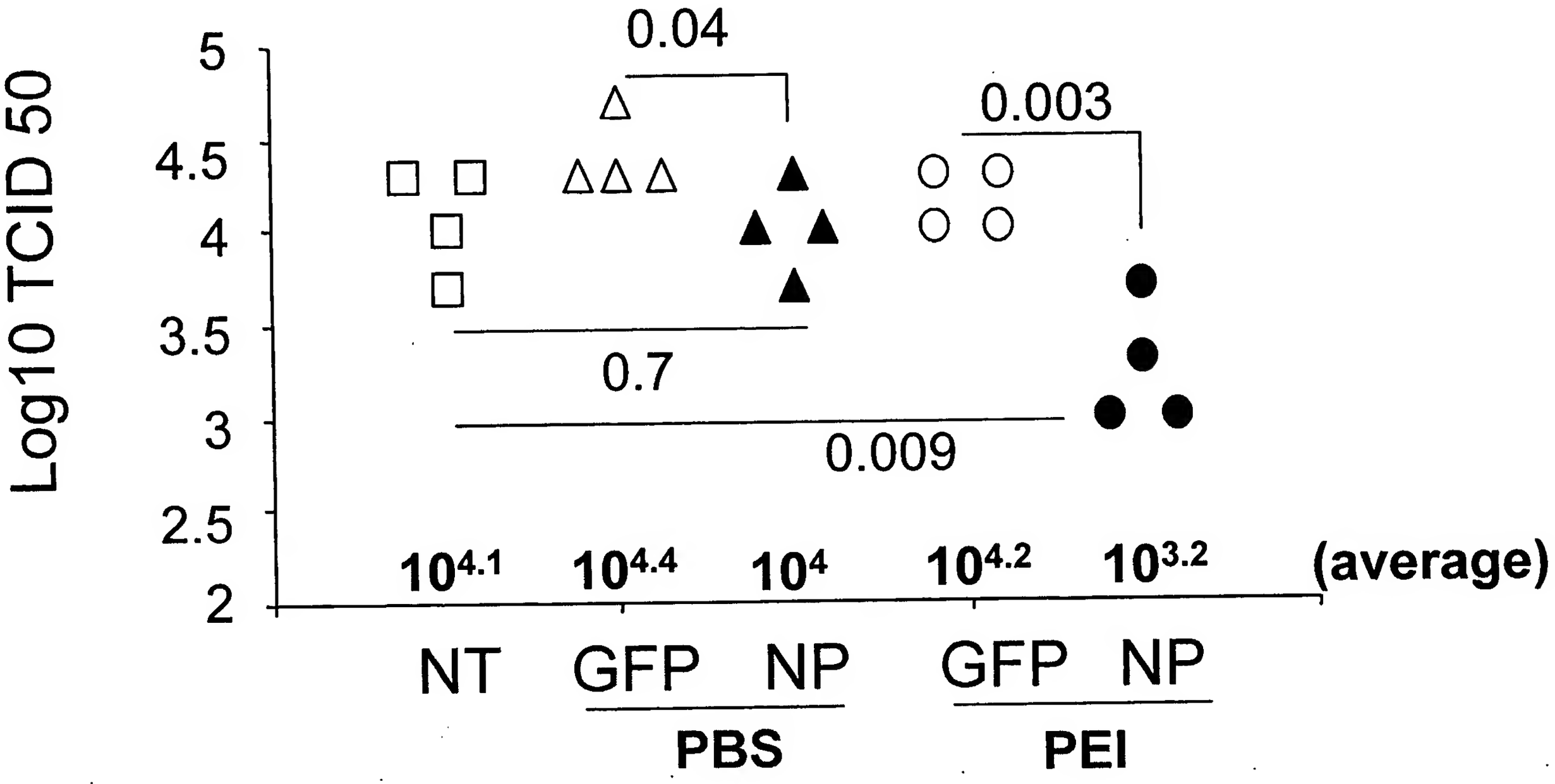
The in vivo Transfection Effect of Poly-L-Lysine(42K)



siRNA + PLL, i.v. —3 h→ PR8, i.n. 12k pfu/mouse —24 h→ 25 μl lung homogenate → MDCK HA assay

FIGURE 8B

siRNA Prevent Influenza Virus Production in vivo



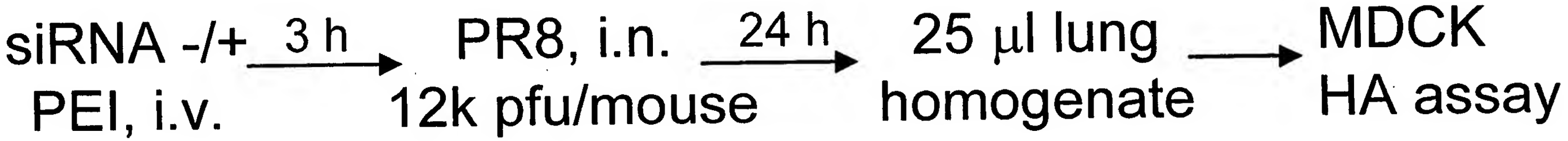
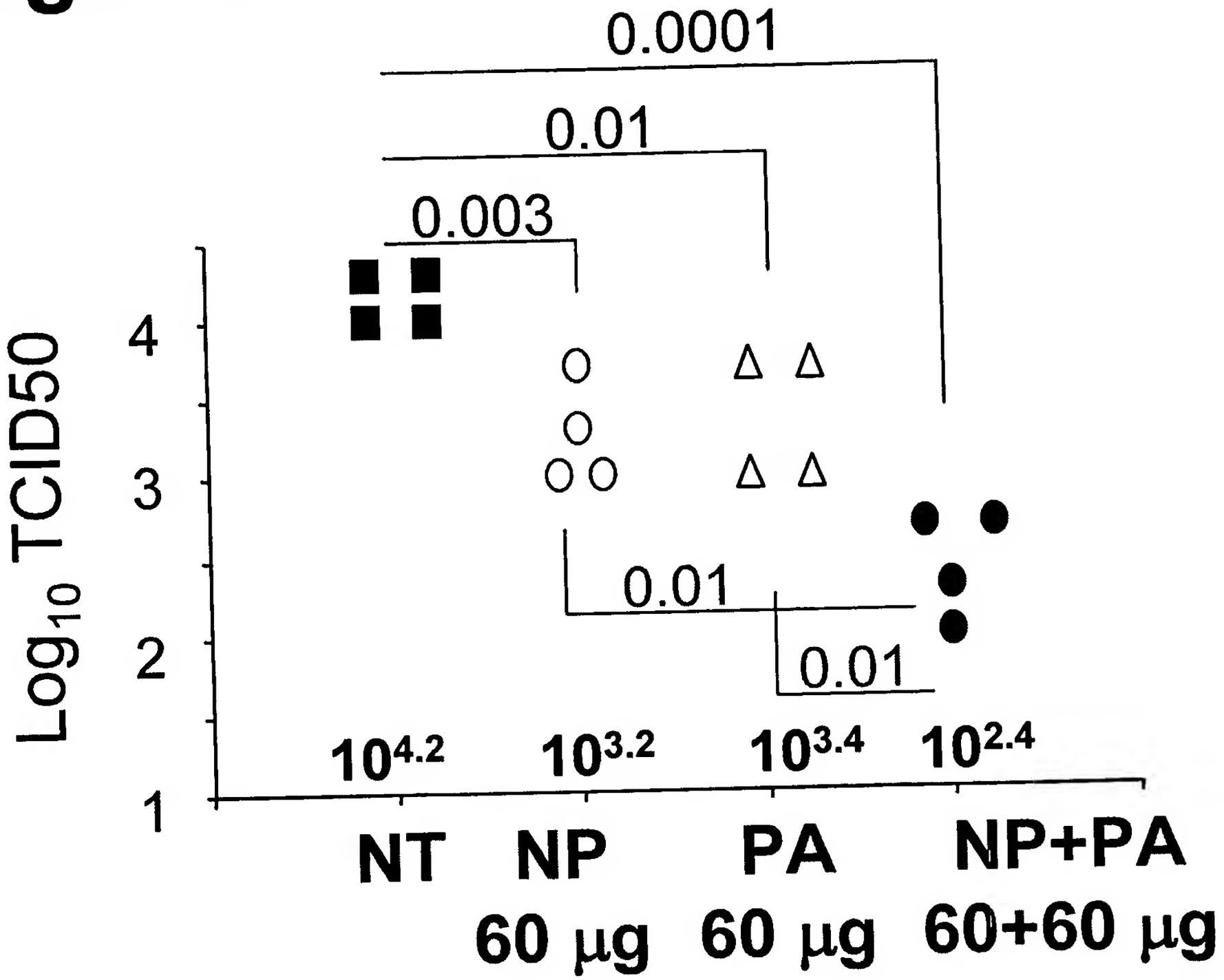


FIGURE 8C

Additive/synergistic effect of siRNA against influenza virus in mice



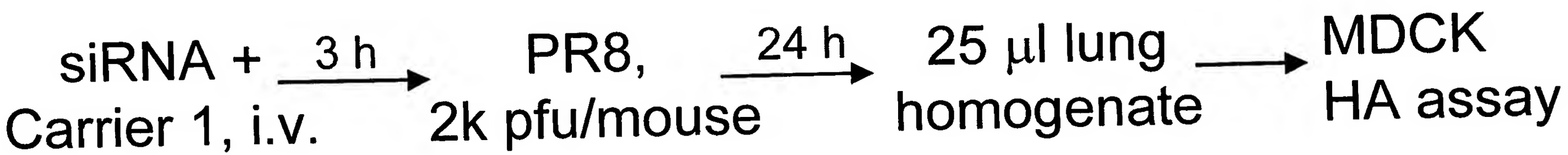
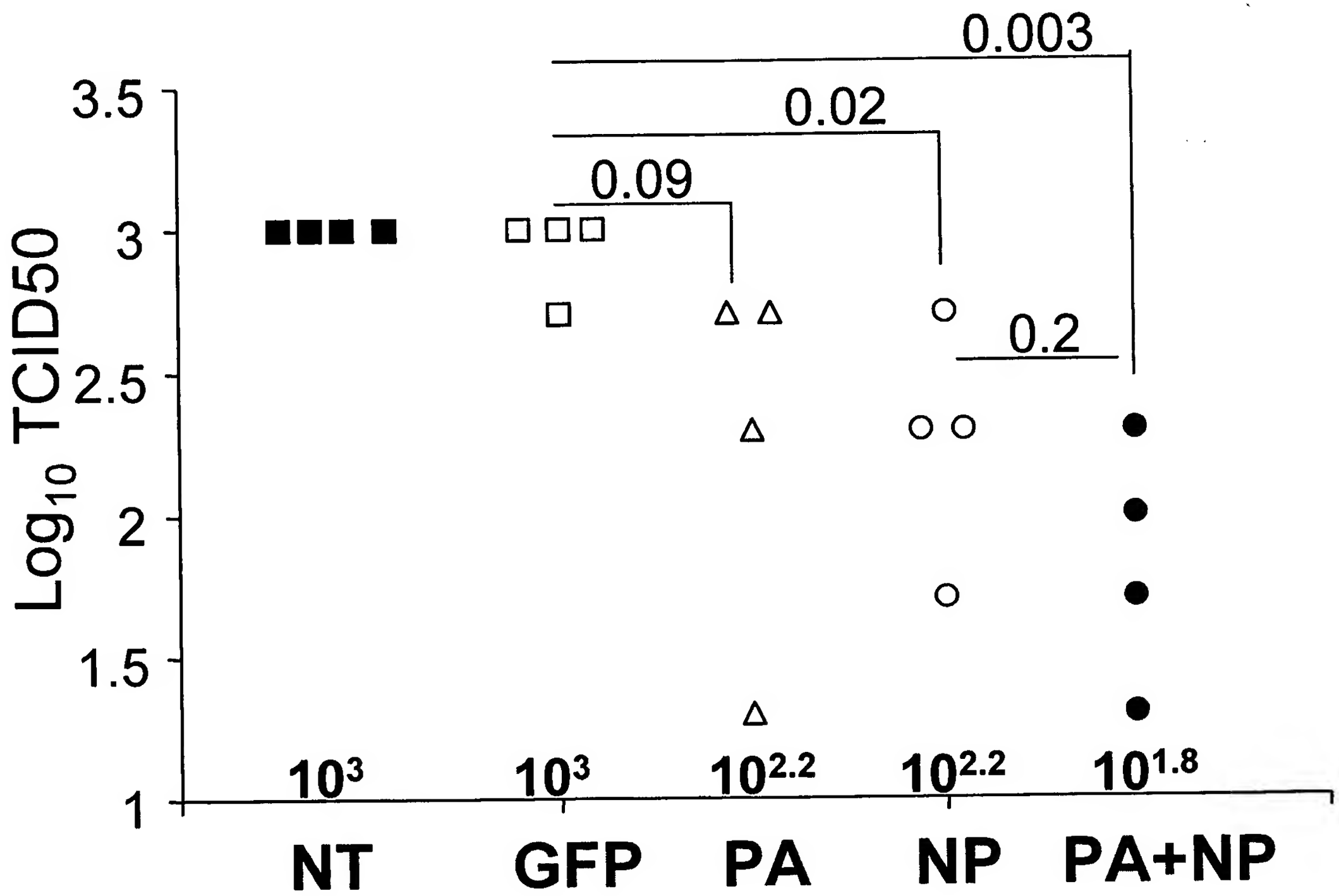


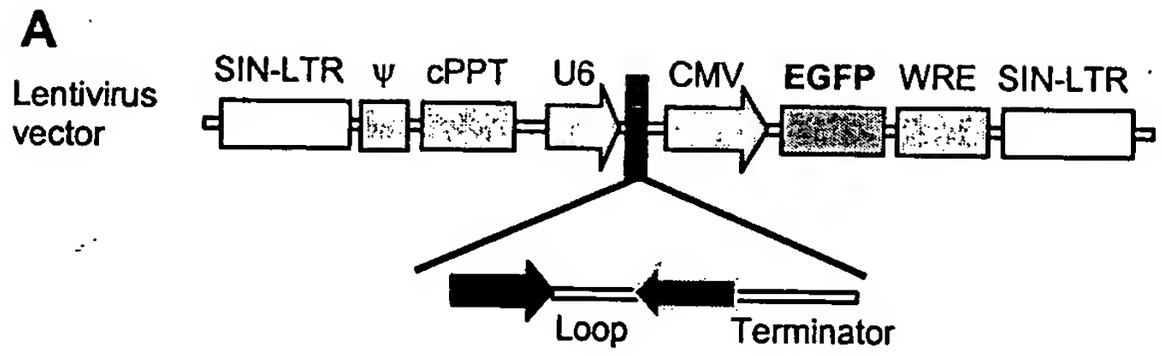
FIGURE 9

siRNA inhibit influenza virus Production in infected mouse



PR8, 500 pfu/mouse → (5 h) → siRNA + Carrier 1, i.v. → (28 h) → 25 μl lung homogenate → MDCK HA assay

FIGURE 10



SEQ ID NO: 36

FIGURE 11

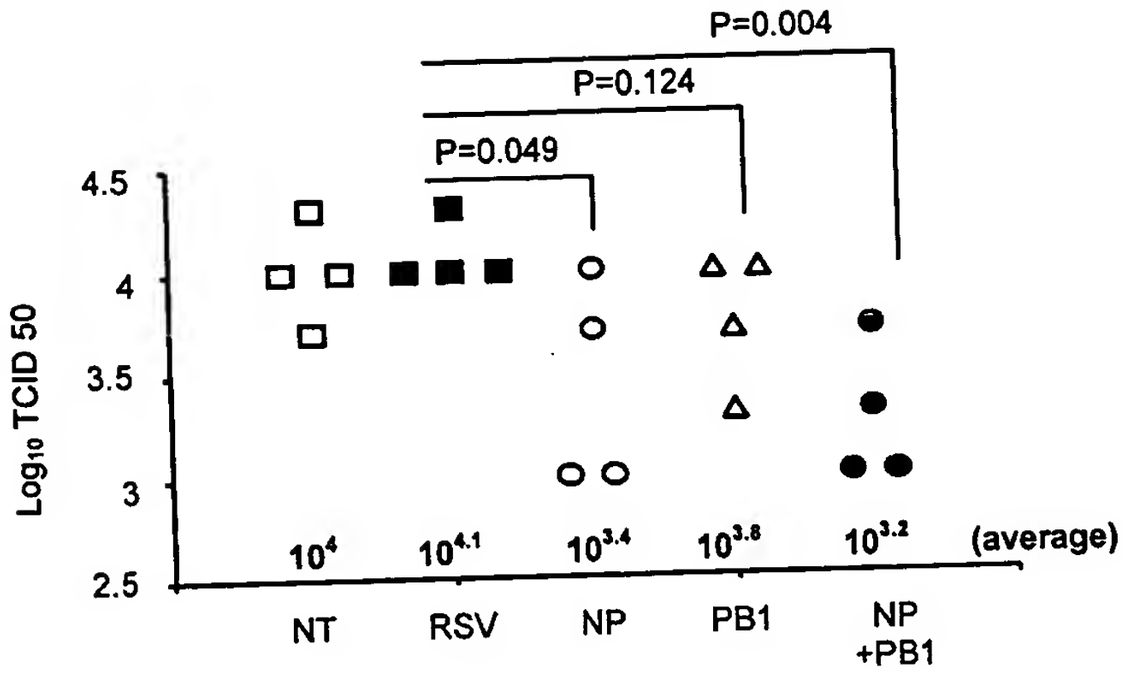

P=0.004
P=0.124
P=0.049
4.5
4
3.5
3
2.5
Log10 TCID 50
10^4
10^4.1
10^3.4
10^3.8
10^3.2
(average)
NT
RSV
NP
PB1
NP +PB1

FIGURE 12

Electrophoretic retardation of siRNA with poly-L-lysine

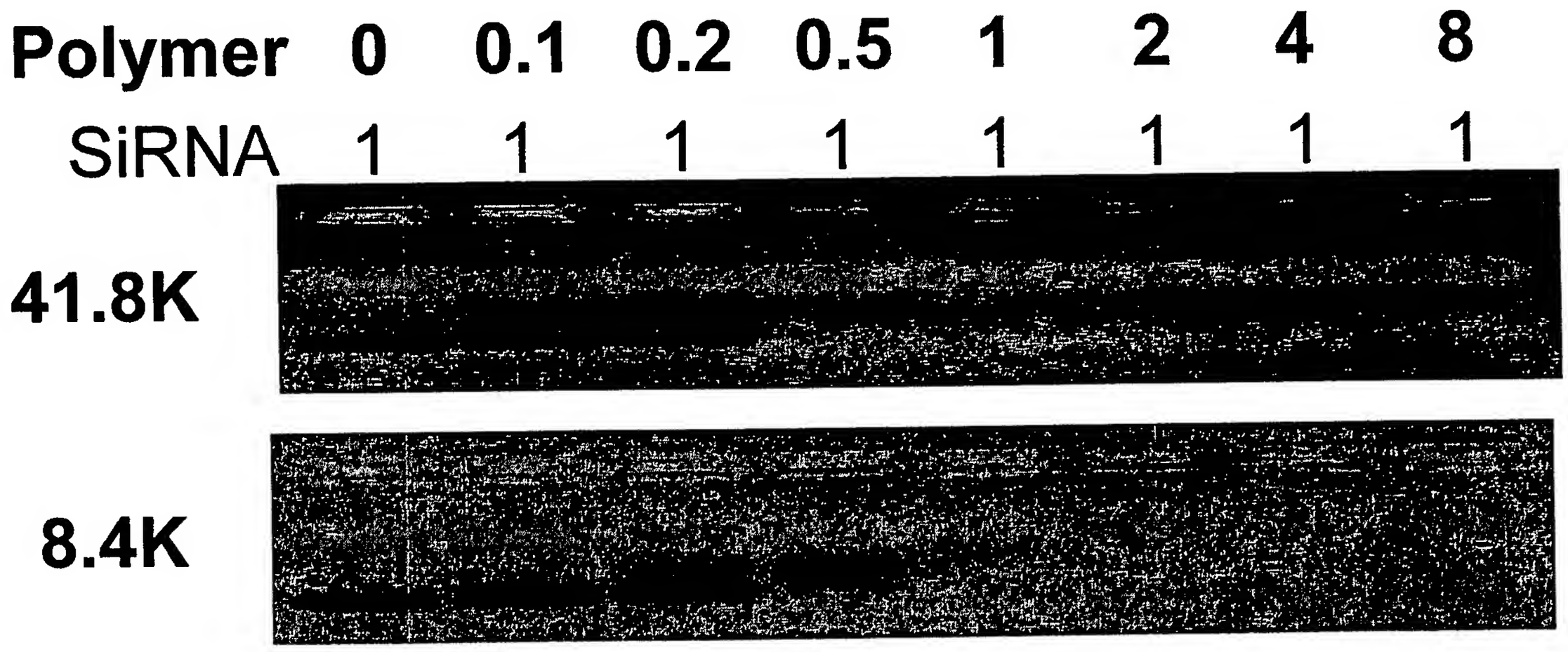


FIGURE 13A

Electrophoretic retardation of siRNA with poly-L-arginine

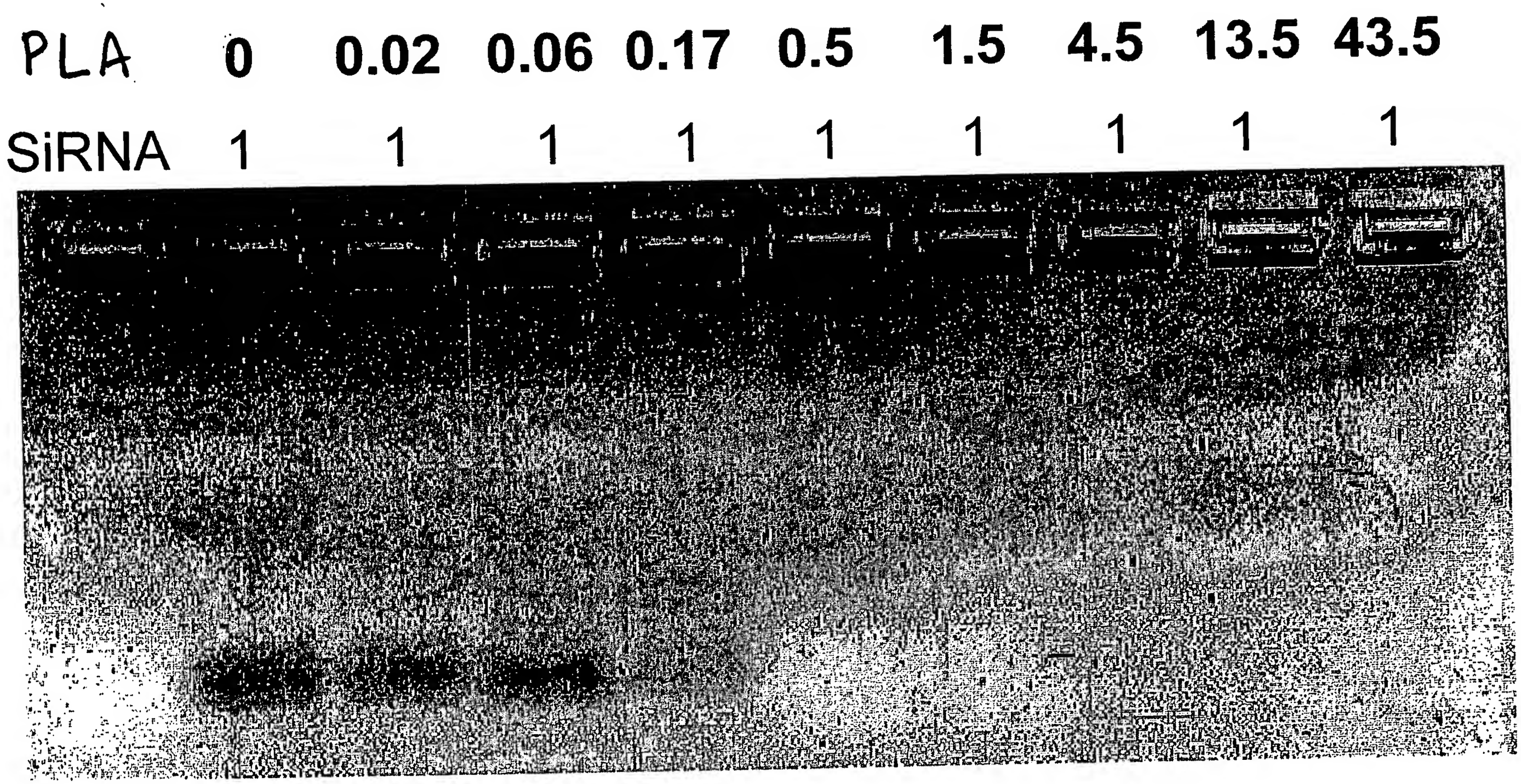


FIGURE 13B

Comparison of poly-L-lysine with different molecular weight

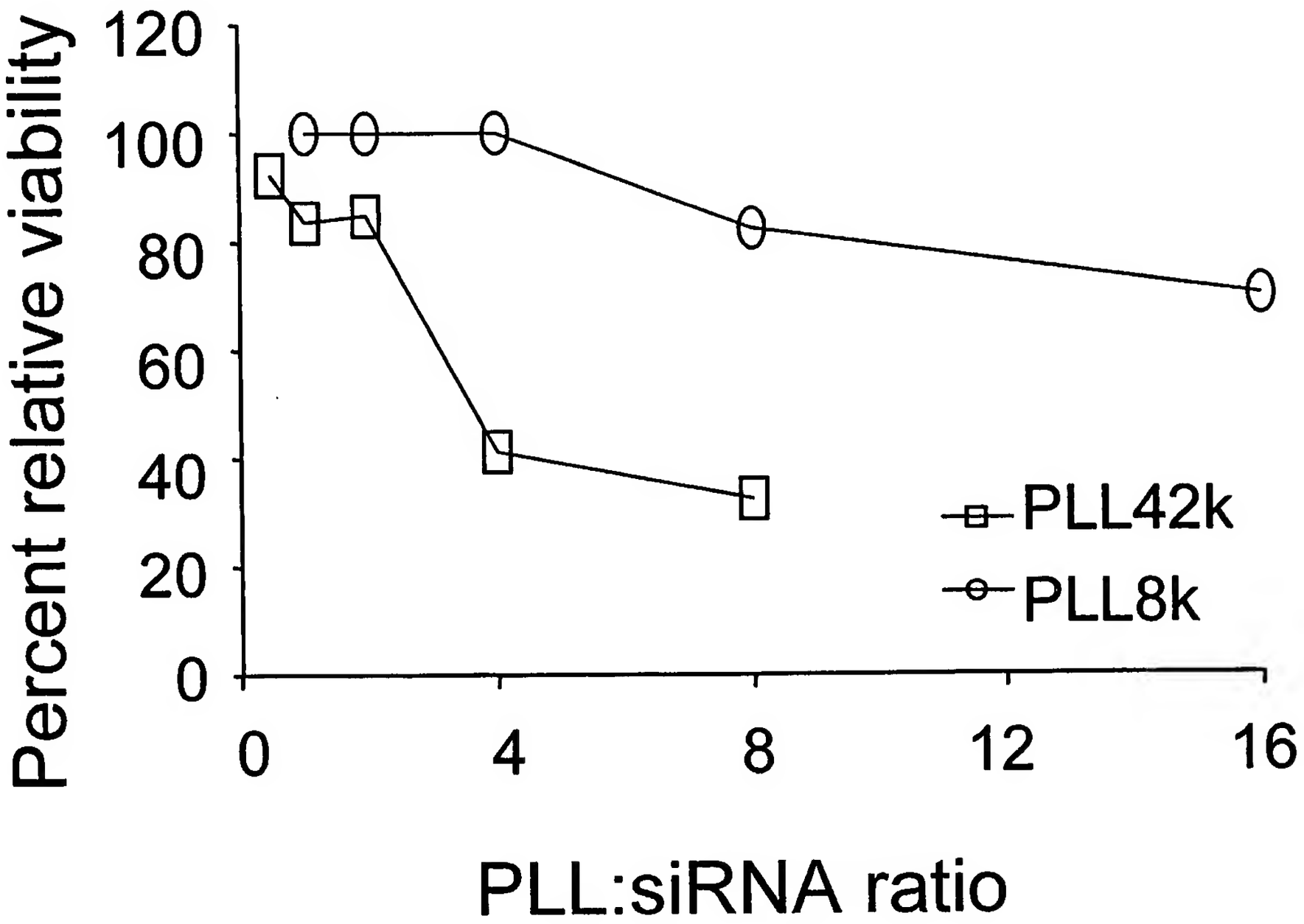


FIGURE 14A

In vitro cytotoxicity of poly-L-arginine

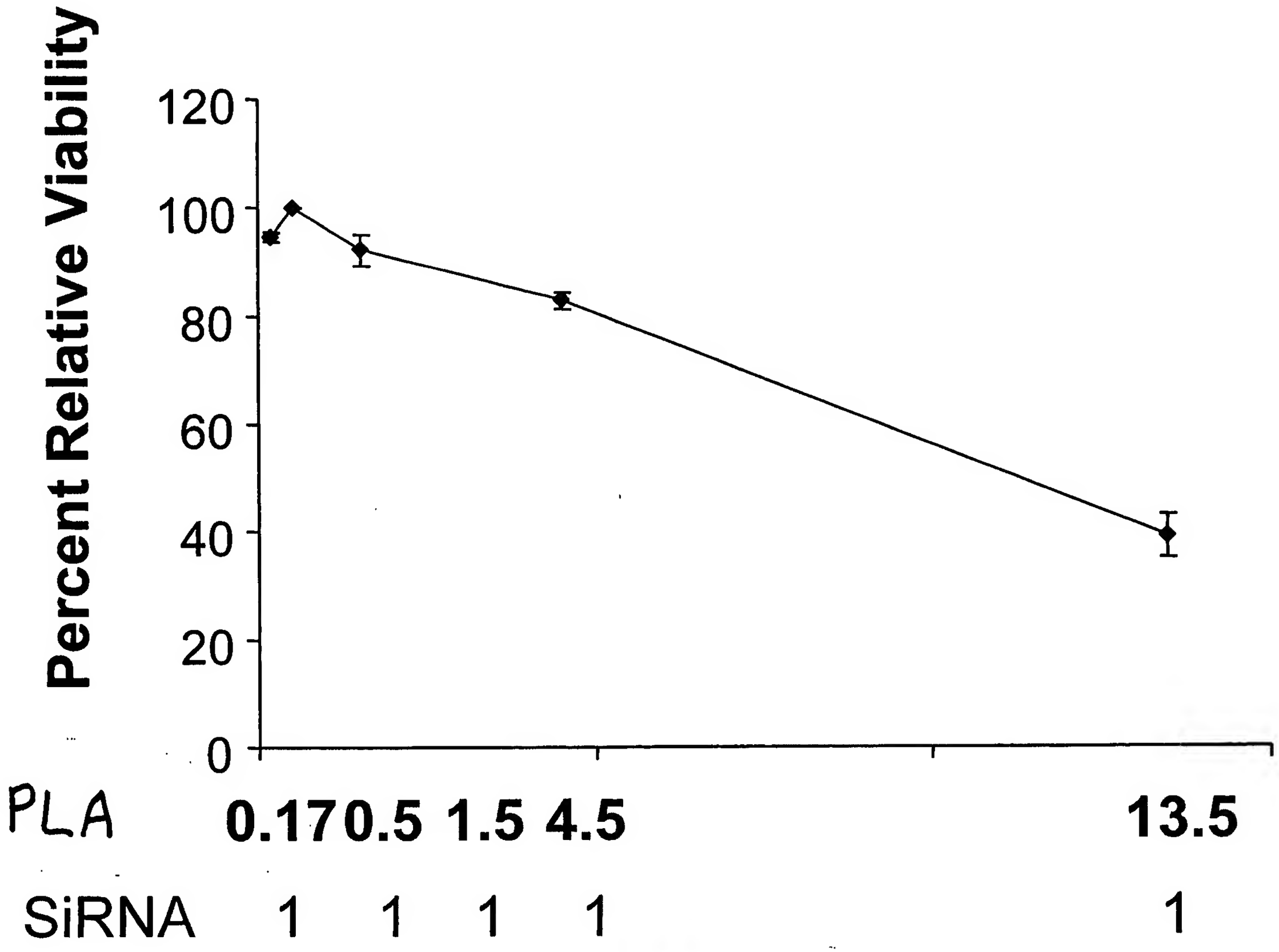
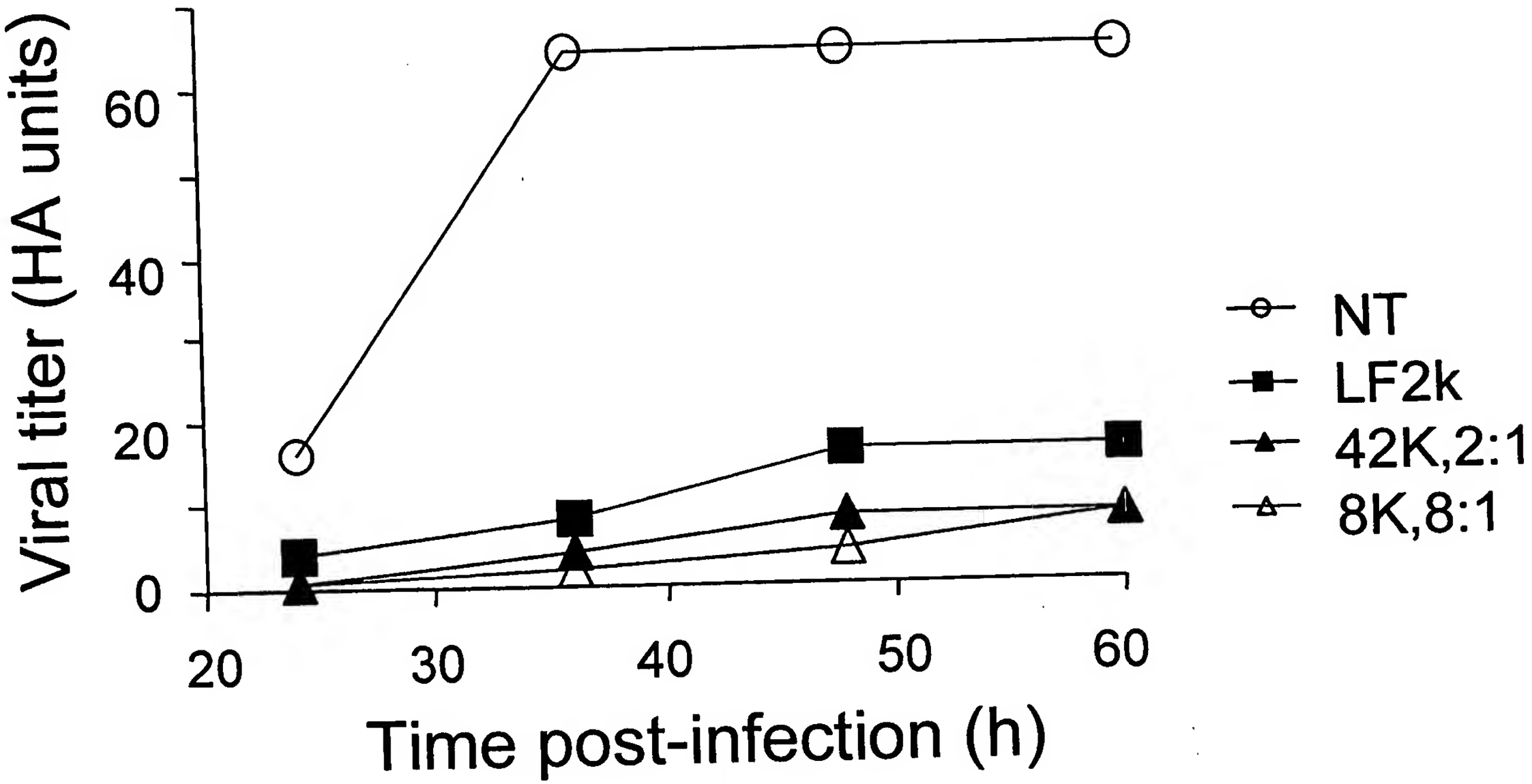


FIGURE 14B

Comparison of poly-L-lysine with different molecular weight



siRNA: $4x10^{-10}$ M

42K PLL: $2.9x10^{-10}$ M

8.4K PLL: $57x10^{-10}$ M

FIGURE 15A

Poly-L-arginine helps cellular uptake of siRNA in vitro

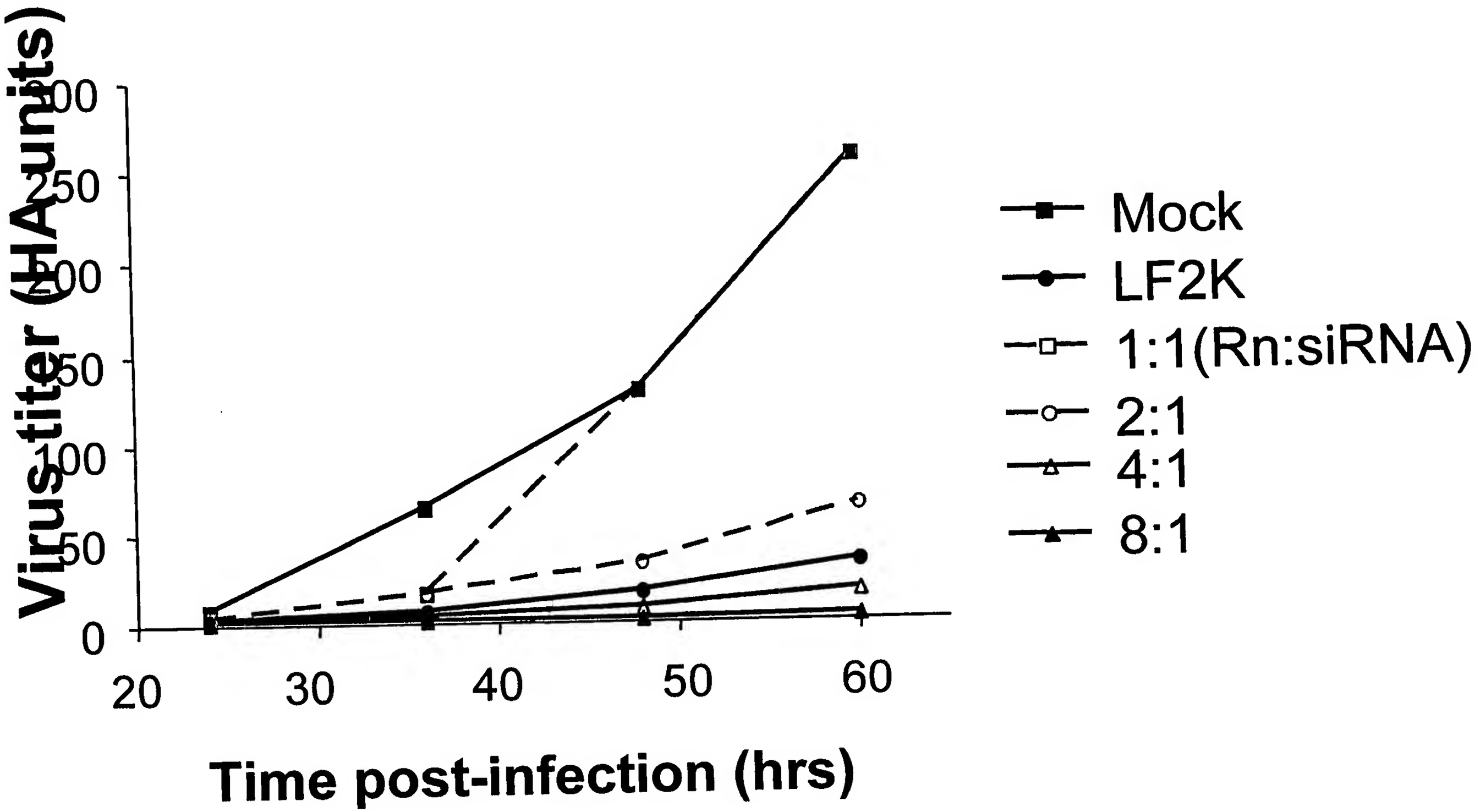


FIGURE 15B

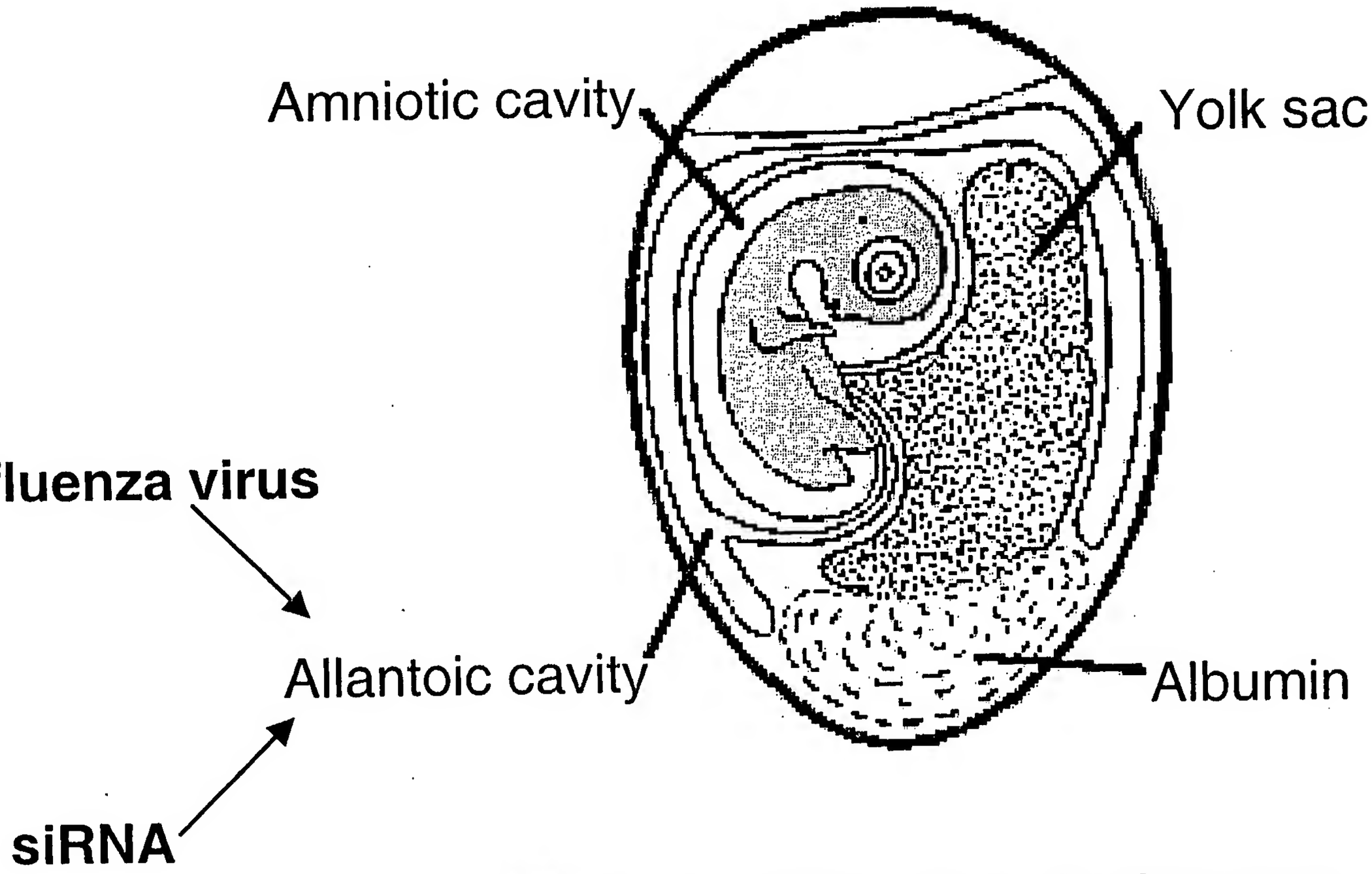

Amniotic cavity
Yolk sac
Influenza virus
Allantoic cavity
Albumin
siRNA
10-day old fertilized chicken egg

FIGURE 16A

The inhibition of influenza A virus replication in chicken embryos

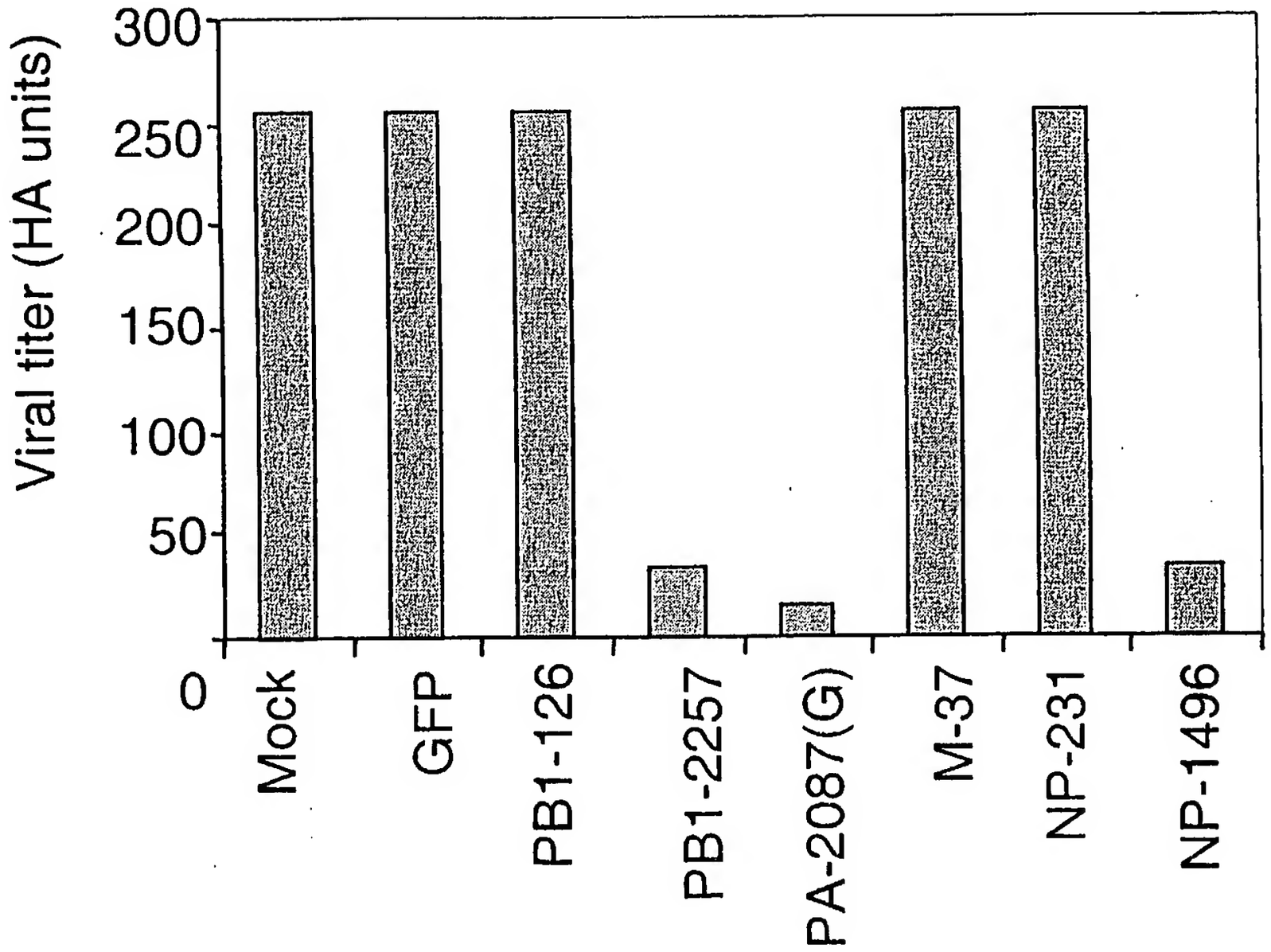


FIGURE 16B